FILE NOTATIONS	
Entered in NID File	Checked by Chief
Entered On S R Sheet	Copy NID to Field Office
Location Map Pinned	Approval Letter
Card Indexed	Disapproval Letter
I W R for State or Fee Land	
COMPLETION DATA: Date Well Completed 9-28-57 OW TA	Location Inspected Bond released
SW OS PA	State of Fee Land
LOGS F	ILED
Electric Lags (No.)	
E E-1	GR. Micro Micro
East Mi-L Soni	c Ofhers



WILLIAM J. GOLMAN

1037 FIRST SECURITY BLDG. SALT LAKE CITY, UTAH

(SUBMIT IN DUPLICATE)

STATE OF UTAH OIL & GAS CONSERVATION COMMISSION

STATE CAPITOL BUILDING -SALT LAKE CITY 14, UTAH

Fee and Patented
Public Domain
Indian

Lease No.

LAND:

SUN	DRY N	OTICES A	AND	REP	ORTS	ON '	WELLS
Notice of Intention to I Notice of Intention to I Notice of Intention to I Notice of Intention to I Notice of Intention to I	Change Plai Redrill or R Pull or Alte Abandon W	epairr Casingell		Subseque Subseque Suppleme	nt Report on nt Report on entary Well	of Alter of Redr Histor	er Shut-off
	(INDICAT	E ABOVE BY CHECK MAP	RK NATUR	E OF REPORT, I	NOTICE, OR OTHI	ER DATA)	
				Ju	1y 3		, 19 <u>57</u>
Well No One	is located	1660 ft. from	n { N }	line and	1980 ft.	. from	$\left\{ \begin{array}{l} \mathbf{E} \\ \mathbf{W} \end{array} \right\}$ line of Sec. 21
SE\SW\rangle - 21 (\(\frac{1}{2} \) Sec. and Sec. No.)		22 South		19	East		SLB&M
(¼ Sec. and Sec. No.)	•••••	(Twp.)		***************************************	(Range)		(Meridian)
W.C(Field)		.	rand	Subdivision)			Utah (State or Territory)
(Fleid)		(county or	Subutvision)			(State of Tollies),
The elevation of the d						urance	Goro US G
A urming and pluggin	ig bonu nas					F)	Election 2 d G 2
(State names of and experience jobs, cementing points, as	ected depths t nd all other i	o objective sands;	show s	OF WORK izes, weight, ormation, ar	s, and lengths	s of prop ipate spu	osed casings; indicate muddingdding-in.)
Mancos	• Surfac	e	C	asing:	9-5/8"	32#	@ 180' w 100 sx
Ferron	- 550'		c	pud:	July 10	1957	7
Dakota	- 1000' - 1150'		3	paa.	July 10	, 1,5,	•
Morrison San Rafael Group	- 1150 - 1950'		R	otary To	ols.		
Glen Canyon Group			-				
Chinle	- 3200'		M	hid:	Mix Gel	base	mud at 800 feet.
Shinarump	- 3600'						
Moenkop	- 3900'						
Paradox	- 4100'						
Company J. E. Men	or and Ge	orge Aubrey		Ву 5	ma	7	operations may be commenced L. E. Menor George Aubrey
Denver 2,	Colorado	•••••		TitlePa	rtners		v
INSTRUCTIONS: A pla	t or map mu	st be attached to	this for	m showing	the location o	of all lea	ses, property lines, drilling and

INSTRUCTIONS: A plat or map must be attached to this form showing the location of all leases, property lines, drilling and producing wells, within an area of sufficient size so that the Commission may determine whether the location of the well conforms to applicable rules, regulations and orders.

	Utah		on: 464	ration:			
			and County				
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	21	SECTION					
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		0,099		ale 4			

J. E. Menor and George Embrey e/o William J. Colman 1037 First Security Bldg Selt Lake City, Utah

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. 1, which is to be located 660 feet from the south line and 1980 feet from the west line of Section 21, Township 22 South, Range 19 East, SLEM, Grand County, Utah.

Please be advised that insofar as this office is concerned, approval to drill said well is hereby granted.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FRIGHT SECRETARY

CBF: on

cc: Don Russell, Dist. Eng. U.S.G.S. Federal Bldg. Selt Lake City, Utah

STATE OF UTAH OIL AND GAS CONSERVATION COMMISSION

AFFIDAVIT AND RECORD OF ABANDONMENT AND PLUGGING

PLUGGING METHODS AND PROCEDURE: - The methods and procedure for plugging a well shall be as follows:

- (a) The bottom of the hole shall be filled to, or a bridge shall be placed at the top of each producing formation open to the well bore, and in either event a cement plug not less than fifty (50) feet in length shall be placed immediately above each producing formation open to the well bore whenever possible.
- (b) A cement plug not less than fifty (50) feet in length shall be placed at approximately fifty (50) feet above and below all fresh water bearing strata.
- A plug shall be placed at or near the surface of the ground in each hole.
- The interval between plugs shall be filled with heavy mud laden fluid. (d)
- (e) The hole shall be plugged with heavy mid up to the base of the surface string at which point a plug of not less than fifty (50) feet of cement shall be placed.

Field or Pool Wildcat	County Grand
Lease Name Government Well No.	71 Sec. 21 Twp 22S R. 19E
Date well was plugged: September 28	
Was the well plugged according to regul	
different materials, and the amount of and bottom elevations of each section well was plugged by Howco. Plugland cement at following intervalistical land cement	1s: 710-775 Above Dakota ss. 19-3300 Above Wingate-Kayenta sss. 1 and gas encountered. Above sand- rater saturation on electric logs. /9.6# Chem-gel base mud. Operator James Menor-George Aubrey
OPERATOR	Address 1645 Court Place
By / owo of the howard R. Ritzma, Representative	Denver 2. Colorado
AFFI	DAVIT
STATE OF UNEN COLORADO) SS COUNTY OF DENVER)	
HOWARD R. RITZMA is subscribed to the above instrument, that he is authorized to make this repersion and that said report is true as	rity, on this day personally appeared, known to me to be the person whose name, who being by me duly sworn on oath states port and has knowledge of the facts stated and correct.
Subscribed and sworn to before 1	ne this lst day of October,
My Commission expires:	
My Commission expires March 28, 1959	NOTARY PUBLIC

INSTRUCTIONS:

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U. S. LAND OFFICE SLC, Utch SERIAL NUMBER 4-68041 LEASE OR PERMIT TO PROSPECT

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

10-15-57

LOG OF OIL OR GAS WELL

LOC	ATE WEL	L CORRE	CTLY					1048 0		. 101.0		
Company - James - Menor - George - Aubrey -						0y	1645 Court Place - Address Denver 2, Colorado					
						_			•			h
Well No	o. 1	Sec. 3	1 T	'. 228 R.	19E M	eridi	ian Salt	Lake	Cou	inty Gr	and	
Location	n 660	ft. $\{N\cdot\}$	of s	_ Line ar	nd 1980	t. {E	of	Line of Se	c2	·	Eleva	ation 4654_
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sidetra of shots	lead or l	DE TITE MOLI	anna i	to have a care results. 12 Tesuits. 12 Its size a ut in to tes	omplete h If there nd locatio for water	istor Were n. I	y of the well, any changes the well has	made in tne been dynam terial used, p	in det casing	L SIRIE IUHV	Land II a	lling, together ny casing was and number ing or bailing.
							1		16	—43094-2 u.	S. GOVERNMENT	PRINTING OFFICE
				MUDD	ING A	ND (CEMENTI	NG RECO	RD			
Size casing	Where s	set	Numbe	r sacks of ce	ment	I	ethod used	Mud gr	avity	An	nount of m	nud used
2-5/8	0-186	1	00 #	x. 25	CaC1	E	owco	•				***************************************
						~	-		******	-		
					PLUG	S A	ND ADAP	TERS				
Heaving	g plug	Material		ose		Le	ngth		I	Depth set		*****
Adenta	ra—Mat	erial				Siz	z e					

		36	100 sx	. 2% CaCl		lowco					
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Heaving	g plug-	 Materi	alNo	PLUC	SS AI Le	ND AI	DAPTER	RS Dor	oth got	***************************************	
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		 								<i>1∂2</i>	
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Cable to	ools we	re used fr	om	feet	to		foot	and from	I	eet to feet	
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The	e produ	ction fo	r the first	24 hours was						was oil;%	
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#orm 9-330

GECLOGICAL SURVEY DEPARTMENT OF THE INTERIOR

7-17 ivo, 2, žron 7-20, 22

No. 1,

179744

ao far as can be distractord from all available records.

Spud.

Plugged and abandoned 9/28/57 by Howco.

25 sx set at

755

Drilled 8-3/4" hole to 800.

Drilled 7-41/8" hole to:4910

Surface casing charphe. Top Of Dakeya Balos On Nover

7. Top. of Entrada sampled quilling

9.5 mud fills intervals between plugs set above?

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HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

2Drilled 13-3/4" holes to 200.

Comented 9-5/80 casing @ 186 w/100 sx.

DEFOR OF OR EVELLARI

UNITED STATES

LEASE OR PERMIT TO PROSTECT

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Metal 5-57

WELL HISTORY

NORTHWEST SALT VALLEY ANTICLINE

James Menor-George Aubrey #1 Government

SE SW Section 21, T. 22 S., R. 19 E., Grand County,

Utah (660' f SL, 1980' f WL)

Federal Lease #U-08041

Elevation: 4644' gr., 4654' D.F., (4658' D.F.-Powers)

Spud: 7-14-57 Completed: 9-28-57 (P. & A.)

9 5/8" Casing @ 186' W/100 Sx.

T.D. 4910 in Moenkopi or Cutler (?) formation.

Contractor: Barron Drilling Company

7-11-57	Moved on to location. Rigging up. Working on pump.
7-12-57	Rigging up.
7-13-57	Rigging up.
7-14-57	Rigging up. Drilled 13 3/4" surface hole to 40". Lost circulation.
7-15-57	Dropped sledge hammer in hole. Pished successfully. Drilled 13 3/4" surface hole to 188'. Hole caved at 75' while coming out. Washed to bottom. Stuck pipe.
7-16-57	Washed drill collar loose. Reamed with 124" Reed reamer
	to 103'. Repair and service rig.
7-17-57	Reamed from 103 to 200°. Started out of hole. Pipe stuck. Pulled out of hole. Ran 186° (6 joints 9 5/8".
	O.D., 8nd, 32.30#, H-40, Spang seamless) casing (Range
	2, S.T. & C.) Cemented by Halliburton with 100 sacks
	regular cement with 2% CaCL. Waiting on cement. Re-
7-18-57	pair and service rig. Nippling up.
1-10-31	Nippled up. Ran 4 drill collars and 1 joint of drill
	pipe in hole. Test casing with 500#. Test o.k.
	Drilled 10 cement. Waiting on parts. Mixed mud and chemicals.
7-19-57	
	Waiting on parts. Rig service.
7-20-57	Repaired #1 motor. Drilled cement, float and guide shoe. Begin drilling at 6:30 A.M. Drilled 8 3/4" hole to
	539. Surveys @ 500-4 3/4°, 530-4 3/4°.
7-21-57	Drilled to 656. Drilled 7 7/8" hole 618-628 in attempt
	to straighten hole. Reamed back to 628 with 8 3/4"
	bit and continued drilling 8 3/4" hole. Surveys $@$ 594-4\frac{1}{2} 615-4 3/4 628-4\frac{1}{2} 650-4 3/4\.
	$594-4\frac{1}{2}$. $615-4$ $3/4$, $628-4\frac{1}{2}$, $650-4$ $3/4$.
7-22-57	Drilled to 818. Reduced hole to 7 7/8" at 800'. Slow
	drilling to correct crooked hole. Several periods
	of down time for rig service and repairs. Surveys @
	$594-4\frac{1}{2}^{\circ}$, $615-4$ $3/4^{\circ}$, $628-4\frac{1}{2}^{\circ}$, $650-4$ $3/4^{\circ}$.

W. 1951

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Drilled to 849. Slow drilling to correct crooked
7-23-57
            hole. Numerous periods of down time for rig
            service and repairs. Survey @ 840-4°.
                            Rig down 8 hours for repairs.
          Drilled to 903.
7-24-57
            Surveys @ 870-3°, 900-2 3/4°.
                             Numerous periods of down time for
          Drilled to 1045.
7-25-57
                                       Surveys @ 927-3°. 990-3°.
            rig repairs and service.
            1045-2
                             Survey @ 1100-2 3/4°.
          Drilled to 1184.
7-26-57
                             Surveys @ 1200-3°, 1260-2 3/4°, 1303-
          Drilled to 1325.
7-27-57
            230.
                             Surveys @ 1347-3°, 1380-2 3/4°.
7-28-57
          Drilled to 1451.
                             Surveys @ 1440-2 3/4°, 1500-2 3/4°.
          Drilled to 1562.
7-29-57
                             Survey @ 1623-3°, 1665-3°.
Survey @ 1762-2 3/4°.
          Drilled to 1674.
7-30-57
          Drilled to 1762.
7-31-57
                             Surveys @ 1810-2 3/4°, 1887-2 3/4°.
Surveys @ 1980-2½°, 2055-2°.
Survey @ 2150-1½°.
8-1-57
          Drilled to 1896.
          Drilled to 2084.
8-2-57
          Drilled to 2221.
8-3-57
                             Survey @ 2265-210
          Drilled to 2297.
8-4-57
                             Survey @ 2350-2 3/4°
          Drilled to 2425.
8-5-57
                             Surveys @ 2447-2 3/4°, 2518-31°.
          Drilled to 2518.
8-6-57
                             Survey @ 2570-310
8-7-57
          Drilled to 2619.
                             Survey @ 2695-210
          Drilled to 2746.
8-8-57
                             Survey @ 2820-110
          Drilled to 2860.
8-9-57
                             Survey @ 2945-1 3/4°.
          Drilled to 2978.
8-10-57
                             Survey @ 3090-120
          Drilled to 3092.
8-11-57
          Drilled to 3191.
8-12-57
                                                              3261=
                             Steel line correction @ 3261.
          Drilled to 3247.
8-13-57
                   Survey @ 3247-3/4°.
             3247.
                             Survey @ 3330-1°.
          Drilled to 3340.
8-14-57
                             Drilled 3375-3407 with one motor.
          Drilled to 3407.
8-15-57
                             Drilled 3407-3442 with one motor.
          Drilled to 3442.
8-16-57
             Shut down for repairs. Waiting on parts.
          Shut down. Waiting on parts.
8-17-57
                              Survey @ 3442-3/4°.
          Drilled to 3503.
8-18-57
                              Survey @ 3603-110.
          Drilled to 3603.
8-19-57
          Drilled to 3694.
                              No survey.
8-20-57
          Drilled to 3780.
                              No survey.
8-21-57
                              Survey @ 3780 - no result.
          Drilled to 3854.
8-22-57
                              Survey @ 3890-1 3/4°.
          Drilled to 3900.
8-23-57
                              Survey @ 3950-10.
          Drilled to 3954.
8-24-57
                             Down for repairs 6:30 P.M., 8-24 to
8-25-57
          Drilled to 3964.
             2 P.M. 8-25.
          Drilled to 4009.
8-26-57
                              Survey @ 4029-10.
          Drilled to 4045.
8-27-57
                            Survey @ 4106-3/4°.
8-28-57
          Drilled to 4111.
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Drilled to 4167. 8-29-57 Drilled to 4221. 8-30-57 Survey @ 4259-110. Drilled to 4270. 8-31-57 Drilled to 4333. 9-1-57 Survey @ 4350-210. Drilled to 4408. 9-2-57 Survey @ 4429-3 3/4°. Drilled to 4454. 9-3-57 Survey @ 4510-4°. Drilled to 4519. 9-4-57 Drilled to 4571. 9-5-57 Ran electric log to 4591. Drilled to 4591. 9-6-57 7 to 12 Rig repairs. Resumed drilling @ 7 A.M. Drilled to 4631. 9-13-57 Drilled to 4675. 9-14-57 Drilled to 4703. Survey @ 4703-4°. Stuck pipe on 9-15-57 way out of hole. Worked pipe loose at 6:20 A.M. Finished trip. Shut 9-16-57 down waiting on orders. Rearranged drill pipe. Tested surface casing. Went 9-17-57 back into hole. Drilled to 4723. Drilled to 4761. Stuck pipe on way out of hole. 9-18-57 Finish trip. Drilled to 4810. 9-19-57 Drilled to 4848. Survey @ 4819-310. 9-20-57 Drilled to 4858. Ran Schlumbarger electric log and 9-21-57 dipmeter. Changing from 34"drill pipe to 24" flush joint drillpipe. Changing from 34"drill pipe to 25" flush joint drillpipe. 9-22-57 9-23-57 Finished picking up drillpipe. Drilled to 4879. 9-24-57 9-25-57 Drilled to 4904. Drilled to 4910. Stuck pipe on way out of hole. 9-26-57 Worked pipe free. Bit apparently became unscrewed in 9-27-57 working stuck pipe and dropped to bottom. Drill collar float broken and jammed in drill collar. Surface casing fragmented and pieces scattered to bottom of hole. Waiting on orders and preparing to abandon. Plugged and abandoned by Howco. 4 plugs @ 25 sx set at 9-28-57 3300-3219, 1673-1594, 775-710, 220-155. Surface plug and marker secured.

Respectfully submitted,

Howard R. Ritzma Consulting Geologist



FORMATION LOG

NORTHWEST SALT VALLEY ANTICLINE

James Menor-George Aubrey #1 Government

SE SW Section 21, T. 22 S., R. 19 E., Grand County,

UTAH (660° f SL, 1980° f WL)

Federal Lease #U-08041

Elevation: 4644° gr., 4654° D.F., (4658° D.F.-Powers)

Spud: 7-14-57 Completed: 9-28-57 (P. &. A.)

9 5/8" Casing @ 186° W/100 Sx.

T.D. 4910 in Moenkopi or Cutler(?) formation.

Contractor: Barron Drilling Company

Prom	То	Samples begin @ 300°.
300	325	Shale, black; trace sandstone, very fine grained, limy; trace calcite crystals.
325	400	Shale, black; abundant calcite crystals; trace bentonite. (Occasional faint oil stain and spotty fluorescence in calcite crystals.)
400	425	Shale, black; abundant calcite crystals; trace sand- stone, very fine grained, hard and tite.
425	45 0	Shale as above 80%; bentonite 20%; tr. calcite and sandstone as above.
450	475	Shale as above becoming slightly silty and sandy (small increase in gas content of mud recorded on Baroid gas logger, 450-68.)
475	500	Shale, dark gray to black, silty to sandy, finely glauconitic; trace sandstone, very fine grained hard and tight.
50 0	525	Shale as above; trace sandstone as above; trace calcite.
525	535	Shale as above 80%; sandstone, dark gray to black, very fine grained to fine grained, junky, pyritic, glauconitic 20%.
TOP OF	PERRON	SANDSTONE
535	540	Sandstone, dark gray to black, very fine grained to fine grained, junky, clayey and soft, glauconitic 80%; shale, black 20%.
540	5 5 0	Shale, black, silty 60%; sandstone as above 20% bentonite 20%.
550	570	Shale as above 80%; bentonite 20%.
570	580	Shale, black 70%; bentonite 30%.
580	610	Shale as above 90%; bentonite 10%.
		ench of Ferron Sandstone
610	630	Sandstone, light gray to black, fine grained, junky, some clayey and soft, some glassy and tight,

Gloutined) Glauconitic 90%; Sandstone, white to light gray, fine grained, salt and pepper textured, hard and tight 10%. (Strong kick of gas on Baroid gas logger 610-13.) Shale, dark gray to black, silty to sandy, glauconitic, micaceous, pyritic 80%; sandstone as above 20%. Shale, black, silty, fine glauconitic in part; trace sandstone as above; trace bentonite. Shale, black, slightly silty 70%; bentonite 30%. Shale, black, slightly silty 70%; bentonite 30%. Shale, black; trace bentonite; trace medium size quartz grains (Dakota?). TOP OF DAKOTA SANDSTONE (757, drilling time) Sandstone, white, fine to medium grained, fairly well sorted, few dark grains, sub-rounded to rounded grains, clayey to siliceous cement, slightly limy, good porosity, appears water saturated. (No show on Baroid logger. No fluorescence, stain or odor.) TOP OF DAKOTA SANDSTONE (Top of claystone © 778) 780 Claystone as above 60%; clay, white and tan, very soft 40%; trace chert as above; trace quartz grains. R40 880 Claystone as above; trace chert as above; trace quartz grains. TOP OF LOWER BENCH OF DAKOTA SANDSTONE Sandstone, white, fine grained, poorly sorted, angular to sub-rounded grains, few dark grains, clayey to siliceous cement, very limy in part, spotty porosity, appears water saturated. (No show on Baroid logger.) TOP OF MORRISON FORMATION Claystone, variegated, some slightly sandy (mostly pale green and tan with trace of red and maroon); tr. coarse quartz grains. Claystone as above 50%; sandstone, white, fine grained, poorly sorted, respectively sorted, some slightly sandy (mostly pale green and tan with trace of red and maroon); tr. coarse quartz grains. Claystone as above 50%; sandstone, white, fine grained, poorly sorted, very limy, tight 50%.	Pron	TO	
640 Shale, dark gray to black, silty to sandy, glauconitic, micaceous, pyritic 80%; sandstone as above 20%. 640 720 Shale, black, silty, fine glauconitic in part; trace sandstone as above; trace bentonite. 720 730 Shale, black, slightly silty 70%; bentonite 30%. 750 760 Shale, black; trace bentonite. 750 760 Shale, black; trace bentonite; trace medium size quartz grains (Dakota?). 760 775 Sandstone, white, fine to medium grained, fairly well sorted, few dark grains, sub-rounded to rounded grains, clayey to siliceous cement, slightly limy, good porosity, appears water saturated. (No show on Baroid logger. No fluorescence, stain or odor.) 775 780 Claystone, gray-green, pyritic in part; trace chert fragments, reddish-orange. (Top of claystone 778) 780 790 Claystone as above 60%; clay, white and tan, very soft 40%; trace chert as above; trace quartz grains. 790 840 Claystone as above; trace chert as above; trace quartz grains. 840 880 Claystone as above; trace chert as above; trace quartz grains. 700 OF LOWER BENCH OF DAKOTA SANDSTONE 880 Sandstone, white, fine grained, poorly sorted, angular to sub-rounded grains, few dark grains, clayey to siliceous cement, very limy in part, spotty porosity, appears water saturated. (No show on Baroid logger. No fluorescence, stain or odor.) 700 OF MORRISON FORMATION 898 910 Claystone, variegated, some slightly sandy (mostly pale green and tan with trace of red and maroon); tr. coarse quartz grains. 910 950 Claystone, variegated, some slightly sandy 80%; clay, white, soft 20%; trace quartz grains. 950 970 Claystone as above 50%; sandstone, white, fine grained,			fine grained, salt and pepper textured, hard and tight 10%. (Strong kick of gas on Baroid gas
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950 970 Claystone as above 50%; sandstone, white, fine grained,	ATO	930	white coft 20%, trace suggested areing
poorly sorted, very limy, tight 50%.	n # n	O.M.O.	white, but our; trace quarto grains. Clauston on chora SCE, condetone white fine areined
	93 0	970	poorly sorted, very limy, tight 50%.

From	To	
970	980	Sandstone, white, fine to medium grained, some well sorted, some angular grains and poorly sorted, clayey, very limy, tight.
990	1010	Claystone, variegated (mainly maroon); trace sandstone as above.
1010	1040	Claystone, variegated; trace sandstone; trace chert fragments: trace limestone, gray, dense.
1040	1070	Claystone as above 50%; sandstone, white, fine to medium grained, poorly sorted, clayey, very limy in part, abundant orange quartz grains, tight 50% (No shows of any sort).
1070	1080	Sample missing.
1080	1090	Sandstone, white, gray and pink, medium to coarse grained, conglomeratic (yellow, orange and red chert pebbles), soft, clayey, limy in part. (no shows of any sort).
1090	1130	Claystone, variegated; trace sandstone as above; trace coarse chert fragments.
1130	1140	Claystone as above 80%; sands tone, white, medium to coarse grained 20%.
1140	1160	Claystone, variegated as above 60%; clay, white soft, limy 40%; trace chert fragments and quartz
1160	1260	Claystone, variegated; trace chert and quartz as above (Claystone changes to dominant dark red and maroon below 1190)
1260	1270	Claystone, variegated 70%; clay, white, soft 30% trace chert and quartz as above.
1270	1280	Sample missing.
1280	1295	Claystone as above 80%; sandstone, white through
		pale green, yellow and orange, fine grained, poorly sorted, clayey, limy in part, tight 20%.
TOP OF	SALT W	ASH SANDSTONE MEMBER OF MORRISON FORMATION
1295	1300	Claystone as above 50%; sandstone as above 50%.
1300	1320	Sandstone as above 70%; claystone as above 30%. (No shows of any sort)
1320	1340	Claystone, variegated 60%; sandstone as above 40%.
1340	1360	Claustone as above 80%; sandstone as above 20%.
1360	1370	Claystone as above 70%; sandstone as above 10%,
1370	1375	clay, white, soft 20%. Claystone as above 70%; sandstone, white to gray, fine grained, well sorted, limy in part, hard, tight 30%.
1375	1380	Claystone as above 60%; sandstone as above 40%.
1380	1400	Claystone as above 80%; sandstone as above 20%.

Prom	To	
1400	1410	Claystone, variegated, some silty to sandy 90%; sandstone as above 10%.
1410	1450	Sandstone, white to pale red, fine to occasion-
		ally coarse grained, abundant orange-yellow
		quartz and chert grains, fairly well sorted,
		porous, limy (no shows of any sort - appears
1460	1463	water saturated). Shale, variegated (mainly maroon).
1450 1463	1470	
1400	14,0	to medium grained, limy, well sorted, porous 70%. (No shows of any sort - appears water saturated). Shale as above 30%.
1470	1490	Sandstone as above 60%; claystone, variegated
		(mainly maroon) 40%.
1490	1500	Sandstone as above, becoming more pale orange and
		arkosic ? 50%; claystone as above 50%.
1500	1510	Claystone as above 70%; sandstone as above 10%; limestone, gray-green, dense, silty 20%.
1510	1540	
1310	T.740	to sandy, micaceous; trace sandstone as above,
		trace limestone as above.
1540	155 0	Claystone as above 50%; sandstone, white to pale
		green, fine grained, poorly sorted, tight 50%;
		trace limestone as above.
1550	1580	Sandstone, white to light gray, fine grained, well
		sorted and rounded grains, limy, few yellow and orange grains, hard, tight 70% (No shows of any
		sort); claystone, variegated 30%.
מס מריד	STIMMER	RVILLE FORMATION
1580	1590	Claystone, variegated (gray-green and maroon), some
		silty, sandy and micaceous 60%; sandstone as above 40%.
159 0	1610	
		10%; trace sandstone as above.
1610	1630	
		gray-green, some silty, sandy and finely micaceous; trace limestone as above; trace sandstone as above.
1620	1640	
16 30	1040	grain inclusion 90%; limestone, gray, dense 10%.
1640	1650	Claystone as above 90%: sandstone, white to gray, fine
2040	ages (of sure rear	grained, hard, tight 10% (Faint fluorescence in few sandstone cuttings. May be mineralization. No show on Baroid gas logger.)
1650	1660	Claystone, dark red, soft, silty to sandy, common
		quartz grain inclusions, finely micaceous, 70%
		sandstone, white to pale green and red, fine
		grained, limy, hard, tight 30% (No shows of any sort).
		~~~ */ *

Prom	То	
1660	1665	Sandstone, white to red, fine to medium grained, soft, friable, limy (No shows).
1665	1670	Claystone, dark red, soft, silty, sandy, micaceous, common quartz grain inclusions.
1670	1680	Claystome as above 80%; sandstone, white, tan, pale pink, fine to medium grained, well rounded sorted grains, few orange grains, friable, porous 20% (No shows of any sort. Appears water flushed).
		SANDSTONE (1678, drilling time)
1680	1780	Sandstone, white, tan, pale pink to occasionally orange, fine to medium grained, well rounded sorted grains, few coarse orange grains, variably limy, friable, porous (No shows. Appears water saturated. Interval 1680-1780 represents Moab sandstone tongue of Entrada).
1780	<b>197</b> 0	Sandstone as above becoming strongly colored to salmon orange. (Poor samples 1800-1970)
1970	2050	Sandstone as above; trace calcite crystals; trace limestone, gray, dense, sandy.
TOP OF	CARMEL	FORMATION
2050	2070	Shale, maroon to red-brown, silty, micaceous; trace limestone, gray, dense; trace gypsum.
2070	2080	Shale as above 90%; limestone as above 10%; trace gypsum.
2080	2090	Shale as above; trace limestone as above.
2090	2100	Shale as above becoming silty and sandy.
2100	2110	Shale as above becoming very sandy 70%; sandstone, orange, fine grained 30%.
2110	2120	Sandstone, salmon orange to pale orange, fine to occasionally medium grained, variably limy, friable, porous (No shows).
2120 TOP OF	2160 NAVA JO	Sandstone as above 50%; shale, red, sandy 50%.
2160	2650	Sandstone, salmon orange becoming pale orange to white, fine to occasionally medium grained, variably limy, friable, porous, limonitic sandstone streaks @ 2520-40, 2560-70. (No shows. Poor samples 2580-2640).
2650	2700	Sandstone as above becoming strongly colored to salmon orange.
2700	2820	Sandstone as above (Poor samples with 30 to 50% cavings).
2820	2940	Sandstone, salmon orange, fine to occasionally medium grained, variably limy, friable, porous. (Poor samples 2910-40).
2940	3 <b>07</b> 0	Sandstone, salmon orange to pinkish brown, fine to occasionally medium grained, very friable, porous, occasional rimy streaks (Poor samples 3020-70).

Prom	То	
3070	3090	Sandstone as above becoming pale pink to white 90%; gypsum, white flaky, finely silty 10%.
TOP OF	KAYENTA	FORMATION
3090	3230	Sandstone, pink, purple and red, very fine to
WW 70	~~~~ <b>~</b>	occasionally coarse grained, micaceous in part.
STEEL	LINE COR	RECTION 3261 m 3247
3230	3270	Sandstone, pale pink to orange to red-purple, very
		fine to occasionally coarse grained, clayey, limy,
		very poorly sorted, angular grains, coarse quartz
		grains and fragments 80%; shale, red, maroon and
		red-purple, silty to sandy, micaceous in part 20%.
3270	3290	Sandstone as above with color range from white
		through red. occasionally finely speckled with
		hornblende and magnetite and finely micaceous 90%;
		shale as above 10%; trace coarse quartz graius.
		(Spotty faint fluorescence. No cut with CCL4.
		No show on Baroid logger.)
3290	3300	Sandstone as above 70%; shale, red and maroon with
		strong increase in gray-purple color 30%; trace
		gypsum; trace coarse calcite crystals.
3300	3310	Sandstone as above 50%; shale as above 50%. (Sand-
		stone and shale have strong gray-purple color.
		Spotty dead oil residue. No cut. No shows.)
3310	3330	Sandstone as above 70%; shale as above 30% trace
		gypsum. (Spotty dead oil residue. No cut. No
		shows.)
3330	3340	Shale as above 50%; sandstone as above 40%; clay,
		maroon soft, gypsiferous 10%, trace gypsum.
3340	3360	Sandstone, white, pale pink and purple, fine to
		medium grained, poorly sorted, many angular grains,
		clayey and tight in part, some slightly limy,
		occasionally coarsely micaceous, green clay pellets
		60%; shale, red to maroon, silty to sandy, some
	ند عشد والا بين	green, clayey 30%; clay, maroon soft 10%.
3360	3370	Sandstone as above (No shows of any sort).
3370	3 <b>38</b> 0	Sandstone as above 80%; shale, red to maroon, silty
	سنسيسيس	to sandy, micaceous 20%.
3380	3390	Sandstone, white to purple (little orange and mostly
		pink, pale red and pale purple), fine to medium
		grained, poorly sorted, green clay inclusions 60%;
		shale, red to maroon, silty to sandy, some green
0000	2 4 2 2	clayey 40%; trace gypsum.
3390	3400	Sandstone as above 80%, shale as above 20%; trace
* * * *	9 4AA	gypsum.
3400	3420	Sandstone as above 90%, shale as above 10%; trace
		gypsum.

	Prom	То	
	3420	3430	Sandstone as above 60%, shale as above 40%; trace gypsum.
	3430	3440	Sandstone as above 80%, shale as above 20%; trace gypsum.
	3440	3450	No sample.
	3450	3460	Shale, red to maroon, silty to sandy, some green, clayey 70%; sandstone as above 20%; clay, maroon, soft 10%.
	3460	3470	Sandstone as above, becoming more orange 60%; shale as above 30%; gypsum, white, flaky 10%; trace limestone.
	3470	3480	Sandstone as above 70%; shale as above 30%; trace gypsum.
	3480	3490	Shale as above 80%; sandstone as above 20%; trace gypsum. (Increase in lavender and purple shale 3480-90)
	3490	3 <b>50</b> 0	Shale, variegated but mainly maroon and lavender, some silty to sandy, some clayey 90%; sandstone as above 10%; trace gypsum.
	TOP OF	WINGATE	SANDSTONE
	3500	3520	Sandstone, white to orange, very fine to occasion- ally medium grained, poorly sorted, black mineral specks abundant 60%; shale as above 40%; trace gypsum.
	3 <b>52</b> 0	3 <b>525</b>	Sandstone, white to pale pink, fine to medium grained, well sorted, slightly limy. 90%; shale as above 10%.
	3525	<b>35</b> 30	Sandstone as above becoming more orange colored. 70% shale as above 30% (Shale appears to be cavings).
	3 <b>530</b>	3660	Sandstone, white to orange, very fine to medium grained, poorly sorted, silty, occasional coarse grains, black mineral specks; trace dolomite @ 3550-70 (Sandstone becoming more orange @ 3590. Samples 40 to 50% cavings.)
er ligeere	3660	3670	Sample missing.
	3 <b>67</b> 0	3 <b>75</b> 0	Sandstone as above (Samples 20 to 40% cavings).
	3 <b>75</b> 0	3840	Sandstone as above (Samples 20 to 40% Cavings).  Sandstone, white to pale orange, very fine to fine grained, silty, occasional coarse quartz grains and dark mineral specks (Samples 30 to 60% cavings).
	TOP OF	CHINLE	PORMATION
	3840	3860	Shale and claystone, variegated (mainly dark red and maroon with green and lavender) 80%; sandstone as above 20%.
	3860	<b>387</b> 0	Shale and claystone as above 90%; sandstone as above 10%; trace limestone, gray to purple, dense.
	3 <b>87</b> 0	3880	Shale and claystone as above 80%; siltatone, red- orange, slightly limy, micaceous, dense 20%; trace limestone as above.

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From	To	
3880	3890	Siltstone as above 70%; shale and claystone as above 30%.
3890	3900	Siltstone as above becoming limy and more pink, red and purple colored. 80%; shale and claystone as above 20%.
3900	3920	Siltstone as above but more red-orange colored, very limy 90%; shale and claystone as above 10%.
3920	3930	Siltstone, pale orange to red orange, very limy 80%; shale and claystone as above 20%.
3930	3 <b>95</b> 0	Siltstone as above 70%; shale and claystone as above 30%; trace limestone, white to gray, silty, flaky.
3 <b>95</b> 0	3960	Siltatone as above 50%; shale and clays tone as above 50%; trace limestone as above.
3 <b>96</b> 0	3970	Siltstone as above 60%; shale and claystone as above 40%.
3970	39 <b>80</b>	Siltstone as above 40%; shale and claystone, varie- gated (dominantly maroon and green), some limy 30%; limestone, white, pale pink, purple, pale orange, dense, silty to occasionally sandy 30%.
3980	3990	Limestone, variegated (white, pink, red, purple, orange) dense, silty to occasionally sandy 90%; shale and claystone, variegated (dominantly maroon and green), some limy 10%.
<b>399</b> 0	4030	Limestone as above but becoming more orange colored 80%: shale and claystone as above 20%.
4030	4060	Limestone as above 70%; shale and claystone as above 30%.
40 <b>6</b> 0	4070	Limestone as above 90%; shale and claystone as above 10%.
4070	4090	Limestone as above 60%; shale and claystone as above 40%; trace dolomite, white to tan, dense; trace sandstone, white, fine grained, sugary (increase in gray and gray green shale and claystone).
4090	4100	Limestone as above 80%; shale and claystone as above but less gray and green 20%.
4100	4110	Shale and claystone, gray, gray-green, dark green, maroon, some silty to sandy 60%; limestone, white orange, dense, silty 40% (Trip sample - possibly much caving)
4110	4130	Limestone as above 70%; shale and claystone as above 30%.
4130	4140	Shale and claystone as above 60%; limestone as above 40%.
4140 u	4160	Shale and claystone, variegated (mainly gray, gray-green and blue green) 70%; limestone as above 30%.
, <b>416</b> 0	4170	Shale and claystone as above 80%; limestone as above 20%; trace limestone and dolomite, pink to red, dense.

From	To	
4170	4180	Limestone, some white, earthy but mainly pink to red, dense, silty to sandy 50%; shale and claystone variegated but more red to maroon, some limy 50%.
4180	4210	Limestone as above 70%; shale and claystone as above 30%.
4210	4220	Limestone as above 40%; shale and claystone as above 30%; limestone, white to pink, very silty to sandy, finely micaceous, earthy to granular 30%, trace sandstone, white, very fine grained, dolomitic, sugary (Limestone lithologies gradational).
4220	4230	Limestone, white, pale pink to red, very silty to fine sandy, finely micaceous, some clayey but mostly granular. 60%; shale and claystone as above 30%; sandstone, white, very fine grained, very limy, rounded well sorted grains, sugary texture 10%.
<b>42</b> 30	4240	Limestone as above but less sandy 90%; shale and claystone as above 10%; trace sandstone as above.
4240	4250	Limestone as above 80%; shale and claystone as above 10%; sandstone as above 10%.
4250	4260	Limestone as above 80%; shale and claystone as above 20%; trace sandstone as above.
4260	4290	Limestone as above becoming red-orange colored; trace sandstone as above.
4290	4300	Limestone as above (red-orange) 90%; shale, dark red to maroon 10%.
4300	4320	Shale, dark red to maroon, limy in part 60%; limestone as above 40%.
4320	4330	Shale, dark red, maroon, gray, gray-green, 80%; lime- stone as above 20%.
TOD OR	CHTNA PI	JMP PORMATION
4330	4340	Shale, dark red, maroon, purple, gray, gray-green (strong increase to gray, green and purple) 60%; sandstone, white to purple, limy, micaceous, junky 20%; siltstone, purple, very limy, micaceous 20%.
4340	4350	Siltstone, gray-green to purple, micaceous, very limy 50%; sandstone, white to green to purple, limy micaceous, junky 30%; shale, variegated 20%.
TOP OF	MOENKO	PI FORMATION
4350	4370	Siltstone as above 80%; shale, variegated 20%; trace sandstone as above (color change from purple to red with less green @ 4360-70.)

<u>Prom</u>	<u></u>
4370	4380 Siltstone as above becoming less limy 60%; shale, variegated (mainly red) 40% (Some siltstone has arkosic appearance).
4380	4390 Siltstone, pale green to purple, variably limy, finely micaceous 70%; shale, variegated (mainly red) 30%.
4390	4410 Siltstone and sandstone, pale green, very fine grained to fine grained, variably limy, micaceous; trace shale variegated (Dead oil residue and shiny black needle-like crystals of a gilsonite appearing material spotty. No cut with CCLA. Faint, very spotty fluorescence).
	SINBAD LIMESTONE MBR. OF MCENKOPI FM.
4410	4430 Siltstone and sandstone as above 60%; limestone, gray to gray-green, dense, fine crystalline 30%; shale, variegated (red-green) 10% (Siltstone, sandstone and limestone all gradational one into other. Limestone has strong sulfur odor on contact with HCl.)
4430	4440 Siltstone and sandstone as above 40%; limestone as
	above 40%; shale as above 20% (Asphaltic residue
TOP OF	very sparse). LOWER MOENKOPI FM.
4440	4450 Shale and claystone, variegated (red-green), silty
	in part 50%; siltstone and sandstone as above 40%; limestone as above 10%.
4450	4520 Shale and claystone, variegated (mainly cinnamon red with green), some silty to fine sandy, some very finely micaceous, some limy; trace limestone, white, earthy 4450-70; (increase in purple claystone 4470-80, increase in limy character below 4490).
<b>452</b> 0	4540 Shale and siltstone, variegated (mainly cinnamon red with green), silty to sandy, some finely micaceous variably limy (increase in sandiness @ 4530).
4540	to red-purple, junky, limy, micaceous 10%; trace limestone, white, gray to red-purple, dense (very spotty brown oil stain in sandstone and limestone. Slight cut with CCL4. Strong sulfur odor on contact with HC1).
<b>455</b> 0	4570 Shale and siltstone as above 70%; sandstone as above 30%; trace limestone as above (No shows).
4570	4580 Sandstone, pink to red, fine to occasionally coarse grained, poorly sorted, junky, micaceous, very lim 60%; shale and siltstone, dark red 40%; trace lime stone, gray, gray-green, red, dense.

4590 4600 Sandstone as above 80%; shale and siltstone as above 20%; trace limestone as above.  4590 4600 Sandstone and conglomerate, pink to red-purple, fine to coarse irregularly sorted quartz grains, few chert fragments and limestone-claystone pebbles in red limy, often quartzitic matrix 40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregularly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, yellow, gray, red and all are fine crystal-	From	To	
fine to coarse irregularly sorted quartz grains,  few chert fragments and limestone-claystone pebbles in red limy, often quartzitic matrix 40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-	4580	4590	Sandstone as above 80%; shale and siltstone as
fine to coarse irregularly sorted quartz grains,  few chert fragments and limestone-claystone pebbles in red limy, often quartzitic matrix 40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-	AEGO	4600	Sandstone and conglomerate, pink to red-purple,
few chert fragments and limestone-claystone pebbles in red limy, often quartzitic matrix 40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-	4370	4000	fine to coarse irregularly sorted quarts grains,
pebbles in red limy, often quartzitic matrix 40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-		F:	few chart fragments and limestone-claystone
40%; shale, red, micaceous 30%; claystone, gray to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-		- 4946	nobblee in red limy, often duartzitic matrix
to dark green and lavender, dense 30%.  4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregularly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-			40%: shale red. micaceous 30%: claystone, gray
4600 4630 Sandstone - conglomerate as above 50%; shale as above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregularly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-			to dark creen and lavender. dense 30%.
above 40%; claystone as above 10%.  4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-	4600	4630	Sandstone - conglomerate as above 50%; shale as
4630 4650 Sandstone - conglomerate, fine to coarse irregu- larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-			above 40%; claystone as above 10%.
larly sorted quartz grains and pebbles with fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-	4630	4650	Sandstone - conglomerate, fine to coarse prregu-
fragments of limestone in red, limy, dense, often quartzitic matrix (limestones range from white, vellow, gray, red and all are fine crystal-			larly sorted quartz grains and pebbles with
white vellow gray red and all are fine crystal-			fragments of limestone in red. limy. Gense,
white, yellow, gray, red and all are line crystal-			often quartzitic matrix (limestones range from
			white, yellow, gray, red and all are line crystal-
line and dense) 80%; shale, red 20%.			line and dense) 80%; shale, red 20%.
4650 4670 Shale and claystone, variegated (maroon-green),	4650	4670	Shale and claystone, variegated (marcon-green),
variably limy and silty 50%; sandstone-conglom-			variably limy and silty 50%; sandstone-congrou-
erate as above 50%.			erate as above 30%.
4670 4680 Shale-claystone, variegated as above 90%; sand-	4670	<b>46</b> 80	Shale-claystone, variegated as above 90%; same
stone-conglomerate as above 10%; trace dolomite;			STORE-CORGIORCIATE as above tow; trace dolomitte;
trace quartz pebbles. 4680 4700 Shale-claystone as above 70%; limestone, white,		4 ### 05 25	trace quartz peuvies.
4680 4700 Shale-claystone as above 70%; limestone, white, gray, pink, red, dense, silty to sandy, granular	4680	4700	Shale-claystone as above row, Linestone, miles
30%; tr. sandstone-conglomerate as above; trace			gray, pink, red, dense, sirry to same, grave; trace
quartz pebbles.			30%; tr. Sandstone-congramerate an above, the
	AMOO	4720	Shale-clavetone as above 90%; limestone as above
4700 4730 Shale-claystone as above 90%; limestone as above; tr.	4/00	4/30	10% - trace sandstone-conglomerate as above: tr.
quartz pebbles. (Shale-claystone becoming less			quartz nebbles (Shale-claystone becoming less
time halow 4700)			time halow 4700)
4730 4735 Sandstone, white, fine to coarse grained, poorly	4730	4735	Sandstone, white, fine to coarse grained, poorly
sorted white siliceous cement. Very dense and	4730		sorted, white siliceous cement, very dense and
tight 70%: claystone, red and marcon 30%; trace			tight 70%: claystone, red and maroon 30%; trace
quartz pebbles. (Drilling break 4728-36).			quartz pebbles. (Drilling break 4728-36).
4735 4740 Sandstone as above 50%: claystone as above 50%.	4735	4740	Sandstone as above 50%: claystone as above 50%.
4740 4760 Claystone-shale, red and maroon, some silty 80%;		4760	Claystone-shale, red and marcon, some silty 80%;
sandstone as above 20%; trace quartz pebbles.	••••		sandstone as above 20%; trace quartz pebbles.
4760 4770 Claystone, mottled and streaked, white, pale green	4760	4770	Claystone, mottled and streaked, white, pale green
through purple, some soft, earthy, some dense,			through purple, some soft, earthy, some dense,
siliceous, coarse quartz grains and pebbles enclose			siliceous, coarse quartz grains and pebbles enclosed
60%; sandstone, white, fine to medium grained, whit			60%; sandstone, white, fine to medium grained, white
clayey to siliceous cement 20%; shale, red and			clayey to siliceous cement 20%; shale, red and
maroon, silty 20%.			maroon, silty 20%.

Prom	To	
4770	4790	Claystone as above 60%; shale as above 40%; trace sandstone as above.
4790	4820	Claystone as above 70%; shale as above 30%.
4820	4830	Claystone and shale, gray, maroon, green, purple 60%; claystone, mottled as above 40%; trace sandstone as above.
4830	4840	Claystone and shale as above 60%; claystone, mottled as above 20%; sandstone, white to pink, fine to medium grained clayey 10%; limestone-dolomite, gray to red, dense 10% (drilling break 4834-37).
4840	4850	Claystone and shale as above 60%; claystone, mottled as above 20%; sandstone as above 20%; trace limestone-dolomite as above. (Drilling break 4840-42).
4850	4860	mottled as above 20%; sandstone as above 10%; trace limestone-dolomite as above.
4860	4865	Sandstone, white through purple and black, angular, poorly sorted grains, dense, quartzitic, limonitic, hematitic, occasionally coarsely micaceous 60%; shale, variegated 40%; trace limestone dolomite as above.
4865	4870	and the same of th
4870	<b>48</b> 80	Shale, variegated 80%; sandstone as above 10%; limestone-dolomite, gray to red, dense, some silty 10%.
4880	4890	and the second s
4890	4900	Shale, variegated; trace sandstone as above; trace limestone-dolomite as above.
4900		Shale, variegated 70%; sandstone as above 20%; lime- stone-dolomite as above 10%.
T.D.	4910 in	Moenkopi or Cutler (?) formation.

## JAMES E. MENOR 1645 COURT PLACE DENVER 2, COLORADO

October 14, 1957

Mr. C. B. Feight, Secretary State of Utah Oil and Gas Conservation Commission Salt Lake City 14, Utah

Dear Mr. Feight:

Would you please acknowledge receipt of OGCC Form #2, Affidavit and Record of Abandonment and Plugging, of the James E. Menor-George Aubrey #1 Government well located in Section 21, T22S, R19E, Grand County, Utah.

It is my understanding that you will return to us one copy of this Affidavit, approved by the State. If this is correct, I would certainly appreciate receiving the approved copy at your earliest convenience.

Thank you very much.

Yours very truly,

James E. Menor

JEM/lo

James E. Menor 1645 Court Place Denver 2, Colorado

Dear Sir:

With reference to your letter of October 14, 1957, returned herewith is an approved copy of Form OGCC-2, Affidavit and Record of Abandonment and Plugging, for Well No. Government 1, located in Section 21, Township 22 South, Range 19 East, SLEM, Grand County, Utah.

It has not been our policy in the past to return an approved copy of Form OGCC-2, but if you so desire, we will be glad to do so.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT SECRETARY

CBF: on